

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: 10/734,563
Source: IFWB
Date Processed by STIC: 12-6-04

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IFWO

RAW SEQUENCE LISTING

DATE: 12/06/2004

PATENT APPLICATION: US/10/734,563

TIME: 12:28:24

Input Set : A:\sequence listing.txt

Output Set: N:\CRF4\12062004\J734563.raw

3 <110> APPLICANT: Sorge, Joseph
 5 <120> TITLE OF INVENTION: DNA POLYMERASES WITH REDUCED BASE ANALOG DETECTION ACTIVITY
 7 <130> FILE REFERENCE: 25436/2345C
 9 <140> CURRENT APPLICATION NUMBER: US 10/734,563
 10 <141> CURRENT FILING DATE: 2003-12-12
 12 <150> PRIOR APPLICATION NUMBER: US 10/298,680
 13 <151> PRIOR FILING DATE: 2002-11-18
 15 <150> PRIOR APPLICATION NUMBER: 10/408,601
 16 <151> PRIOR FILING DATE: 2003-04-07
 18 <150> PRIOR APPLICATION NUMBER: US 10/280,962
 19 <151> PRIOR FILING DATE: 2002-10-25
 21 <160> NUMBER OF SEQ ID NOS: 110
 23 <170> SOFTWARE: PatentIn version 3.2
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 30
 27 <212> TYPE: DNA
 28 <213> ORGANISM: Artificial sequence
 30 <220> FEATURE:
 31 <223> OTHER INFORMATION: primer
 33 <400> SEQUENCE: 1
 34 gacgacgaca agatgatttt agatgtggat 30
 37 <210> SEQ ID NO: 2
 38 <211> LENGTH: 30
 39 <212> TYPE: DNA
 40 <213> ORGANISM: Artificial sequence
 42 <220> FEATURE:
 43 <223> OTHER INFORMATION: primer
 45 <400> SEQUENCE: 2
 46 ggaacaagac ccgtctagga ttttttaatg 30
 49 <210> SEQ ID NO: 3
 50 <211> LENGTH: 23
 51 <212> TYPE: DNA
 52 <213> ORGANISM: Artificial sequence
 54 <220> FEATURE:
 55 <223> OTHER INFORMATION: primer
 58 <220> FEATURE:
 59 <221> NAME/KEY: misc_feature
 60 <222> LOCATION: (23)..(23)
 61 <223> OTHER INFORMATION: n = Uracil
 63 <400> SEQUENCE: 3
 W--> 64 gacgttgtaa aacgacggcc agn 23
 67 <210> SEQ ID NO: 4
 68 <211> LENGTH: 22

(ps. 6)

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69 <212> TYPE: DNA
70 <213> ORGANISM: Artificial sequence
72 <220> FEATURE:
73 <223> OTHER INFORMATION: primer
75 <400> SEQUENCE: 4
76 acgttgtaaa acgacggcca gt 22
79 <210> SEQ ID NO: 5
80 <211> LENGTH: 31
81 <212> TYPE: DNA
82 <213> ORGANISM: Artificial sequence
84 <220> FEATURE:
85 <223> OTHER INFORMATION: primer
87 <400> SEQUENCE: 5
88 caatttcaca caggaaacag ctatgaccat g 31
91 <210> SEQ ID NO: 6
92 <211> LENGTH: 37
93 <212> TYPE: DNA
94 <213> ORGANISM: Artificial sequence
96 <220> FEATURE:
97 <223> OTHER INFORMATION: primer
99 <400> SEQUENCE: 6
100 gaacatcccc aagatgaacc cactattaga gaaaaag 37
103 <210> SEQ ID NO: 7
104 <211> LENGTH: 37
105 <212> TYPE: DNA
106 <213> ORGANISM: Artificial sequence
108 <220> FEATURE:
109 <223> OTHER INFORMATION: primer
111 <400> SEQUENCE: 7
112 ctttttctct aatagtgggt tcatcttggg gatgttc 37
115 <210> SEQ ID NO: 8
116 <211> LENGTH: 37
117 <212> TYPE: DNA
118 <213> ORGANISM: Artificial sequence
120 <220> FEATURE:
121 <223> OTHER INFORMATION: primer
123 <400> SEQUENCE: 8
124 gaacatcccc aagatagacc cactattaga gaaaaag 37
127 <210> SEQ ID NO: 9
128 <211> LENGTH: 37
129 <212> TYPE: DNA
130 <213> ORGANISM: Artificial sequence
132 <220> FEATURE:
133 <223> OTHER INFORMATION: primer
135 <400> SEQUENCE: 9
136 ctttttctct aatagtgggt ctatcttggg gatgttc 37
139 <210> SEQ ID NO: 10
140 <211> LENGTH: 37
141 <212> TYPE: DNA

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142 <213> ORGANISM: Artificial sequence
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145 <223> OTHER INFORMATION: primer
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151 <210> SEQ ID NO: 11
152 <211> LENGTH: 37
153 <212> TYPE: DNA
154 <213> ORGANISM: Artificial sequence
156 <220> FEATURE:
157 <223> OTHER INFORMATION: primer
159 <400> SEQUENCE: 11
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163 <210> SEQ ID NO: 12
164 <211> LENGTH: 37
165 <212> TYPE: DNA
166 <213> ORGANISM: Artificial sequence
168 <220> FEATURE:
169 <223> OTHER INFORMATION: primer
171 <400> SEQUENCE: 12
172 gaacatcccc aagatcaccc cactattaga gaaaaag 37
175 <210> SEQ ID NO: 13
176 <211> LENGTH: 37
177 <212> TYPE: DNA
178 <213> ORGANISM: Artificial sequence
180 <220> FEATURE:
181 <223> OTHER INFORMATION: primer
183 <400> SEQUENCE: 13
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187 <210> SEQ ID NO: 14
188 <211> LENGTH: 37
189 <212> TYPE: DNA
190 <213> ORGANISM: Artificial sequence
192 <220> FEATURE:
193 <223> OTHER INFORMATION: primer
196 <220> FEATURE:
197 <221> NAME/KEY: misc_feature
198 <222> LOCATION: (1)..(1)
199 <223> OTHER INFORMATION: 5' phosphate
201 <220> FEATURE:
202 <221> NAME/KEY: misc_feature
203 <222> LOCATION: (16)..(17)
204 <223> OTHER INFORMATION: n= A, T, G or C
206 <400> SEQUENCE: 14
W--> 207 gaacatcccc aagatnnkcc cactattaga gaaaaag 37
210 <210> SEQ ID NO: 15
211 <211> LENGTH: 18
212 <212> TYPE: DNA
213 <213> ORGANISM: Artificial sequence

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215 <220> FEATURE:
216 <223> OTHER INFORMATION: primer
218 <400> SEQUENCE: 15
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222 <210> SEQ ID NO: 16
223 <211> LENGTH: 18
224 <212> TYPE: DNA
225 <213> ORGANISM: Artificial sequence
227 <220> FEATURE:
228 <223> OTHER INFORMATION: primer
230 <400> SEQUENCE: 16
231 cgacgactcg tggagccc 18
234 <210> SEQ ID NO: 17
235 <211> LENGTH: 2328
236 <212> TYPE: DNA
237 <213> ORGANISM: Pyrococcus furiosus
239 <400> SEQUENCE: 17
240 atgatttttag atgtggatta cataactgaa gaaggaaaac ctgttattag gctattcaaa 60
242 aaagagaacg gaaaatttaa gatagagcat gatagaactt ttagaccata catttacgct 120
244 cttctcaggg atgattcaaa gattgaagaa gttaagaaaa taacggggga aaggcatgga 180
246 aagattgtga gaattgttga tgtagagaag gttgagaaaa agtttctcgg caagcctatt 240
248 accgtgtgga aactttattht ggaacatccc caagatgttc ccactattag agaaaaagtt 300
250 agagaacatc cagcagttgt ggacatcttc gaatacgata ttccatttgc aaagagatac 360
252 ctcatcgaca aaggcctaata accaatggag ggggaagaag agctaaagat tcttgccttc 420
254 gatatagaaa ccctctatca cgaaggagaa gagtttgga aaggcccaat tataatgatt 480
256 agttatgcag atgaaaatga agcaaagggtg attacttgga aaaacataga tcttcacatac 540
258 gttgaggttg tatcaagcga gagagagatg ataaagagat ttctcaggat tatcaggagg 600
260 aaggatcctg acattatagt tacttataat ggagactcat tgcattccc atatttagcg 660
262 aaaagggcag aaaaacttgg gattaaatta accattggaa gagatggaag cgagcccaag 720
264 atgcagagaa taggcgatat gacggctgta gaagtcaagg gaagaataca tttcgacttg 780
266 tatcatgtaa taacaaggac aataaatctc ccaacataca cactagaggc tgtatatgaa 840
268 gcaatttttg gaaagccaaa ggagaaggta tactgccgac agatagcaaa agcctgggaa 900
270 agtggagaga acccttgagag agttgccaaa tactcgatgg aagatgcaaa ggcaacttat 960
272 gaactcggga aagaattcct tccaatggaa attcagcttt caagattagt tggacaacct 1020
274 ttatgggatg tttcaaggtc aagcacaggg aaccttgtag agtggttctt acttaggaaa 1080
276 gcctacgaaa gaaacgaagt agtccaaac aagccaagtg aagaggagta tcaaagaagg 1140
278 ctccaggaga gctacacagg tggattcggt aaagagccag aaaaggggtt gtgggaaaac 1200
280 atagtatacc tagatttttag agccctatat ccctcgatta taattaccca caatgtttct 1260
282 cccgatactc taaatcttga gggatgcaag aactatgata tcgctcctca agtaggccac 1320
284 aagttctgca aggacatccc tggttttata ccaagtctct tgggacattt gttagaggaa 1380
286 agacaaaaga ttaagacaaa aatgaaggaa actcaagatc ctatagaaaa aatactcctt 1440
288 gactatagac aaaaagcgat aaaactctta gcaaattctt tctacggata ttatggctat 1500
290 gcaaaagcaa gatggtactg taaggagtgt gctgagagcg ttactgcctg gggagaaaag 1560
292 tacatcgagt tagtatggaa ggagctcgaa gaaaagtttg gatttaaagt cctctacatt 1620
294 gacactgatg gtctctatgc aactatccca ggaggagaaa gtgaggaaat aaagaaaaag 1680
296 gctctagaat ttgtaaaata cataaattca aagctccctg gactgctaga gcttgaatat 1740
298 gaagggtttt ataagagggg attcttcggt acgaagaaga ggtatgcagt aatagatgaa 1800
300 gaaggaaaag tcattactcg tggtttagag atagtttaga gagattggag tgaaattgca 1860
302 aaagaaactc aagctagagt tttggagaca atactaaaac acggagatgt tgaagaagct 1920

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304 gtgagaatag taaaagaagt aatacaaaaag cttgccaat atgaaattcc accagagaag 1980
306 ctgcgaatat atgagcagat aacaagacca ttacatgagt ataaggcgat aggtcctcac 2040
308 gtagctgttg caaagaaact agctgctaaa ggagttaaaa taaagccagg aatggtaatt 2100
310 ggatacatag tacttagagg cgatgggtcca attagcaata gggcaattct agctgaggaa 2160
312 tacgatccca aaaagcacia gtatgacgca gaatattaca tggagaacca ggttcttcca 2220
314 gcggtactta ggatattgga gggatttggg tacagaaagg aagacctcag ataccaaaag 2280
316 acaagacaag tcggcctaac ttcttggtt aacattaaaa aatcctag 2328
319 <210> SEQ ID NO: 18
320 <211> LENGTH: 2325
321 <212> TYPE: DNA
322 <213> ORGANISM: Pyrococcus sp.
324 <400> SEQUENCE: 18
325 atgatcctcg acactgacta cataaccgag gatggaaagc ctgtcataag aattttcaag 60
327 aaggaaaacg gcgagtttaa gattgagtag gaccggactt ttgaacccta cttctacgcc 120
329 ctctgaagg acgattctgc cattgaggaa gtcaagaaga taaccgccga gaggcacggg 180
331 acggttgtaa cggttaagcg ggttgaaaaa gttcagaaga agttcctcgg gagaccagtt 240
333 gaggtctgga aactctactt tactcatccg caggacgtcc cagcgataag ggacaagata 300
335 cgagagcatc cagcagttat tgacatctac gactacgaca tacccttcgc caagcgctac 360
337 ctcatagaca agggattagt gccaatggaa ggcgacgagg agctgaaaat gctcgccttc 420
339 gacattgaaa ctctctacca tgaggcgag gagttcgccg aggggccaat ccttatgata 480
341 agctacgccg acgaggaagg ggcaggggtg ataacttgga agaactgga tctcccctac 540
343 gttgacgtcg tctcgacgga gagggagatg ataaagcgct tctcctgtgt tgtgaaggag 600
345 aaagaccggg acgttctcat aacctacaac ggcgacaact tcgacttcgc ctatctgaaa 660
347 aagcgctgtg aaaagctcgg aataaacttc gccctcggaa gggatggaag cgagccgaag 720
349 attcagagga tgggcgacag gtttgccgtc gaagtgaagg gacggataca cttcgatctc 780
351 tatcctgtga taagacggac gataaacctg cccacataca cgcttgaggc cgtttatgaa 840
353 gccgtcttcg gtcagccgaa ggagaagggt tacgctgagg aaataaccac agcctgggaa 900
355 accggcgaga accttgagag agtcgcccgc tactcgatgg aagatgcgaa ggtcacatac 960
357 gagcttgagg aggagttcct tccgatggag gccagcttt ctgcctaat cggccagttc 1020
359 ctctgggacg tctcccgtc cagcactggc aacctcgttg agtggttct cctcaggaag 1080
361 gcctatgaga ggaatgagct ggcgccgaac aagcccgatg aaaaggagct ggccagaaga 1140
363 cggcagagct atgaaggagg ctatgtaaaa gaccccgaag gagggttggt ggagaacata 1200
365 gtgtacctag attttagatc cctgtacccc tcaacctatc taccacaaa cgtctcgccg 1260
367 gatacgctca acagagaagg atgcaaggaa tatgacgttg cccacaggt cggccaccgc 1320
369 ttctgcaagg acttcccagg atttatcccg agcctgcttg gagacctcct agaggagagg 1380
371 cagaagataa agaagaagat gaaggccacg attgaccgga tcgagaggaa gctcctcgat 1440
373 tacaggcaga gggccatcaa gatcctggca aacagctact acggttacta cggctatgca 1500
375 agggcgcgct ggtactgcaa ggagtgtgca gagagcgtaa cggcctgggg aaggagtag 1560
377 ataacgatga ccatcaagga gatagaggaa aagtacggct ttaaggtaat ctacagcgac 1620
379 accgacggat tttttgccac aatacctgga gccgatgctg aaaccgtcaa aaagaaggct 1680
381 atggagtcc tcaagtatat caacgcaaaa cttccgggcg cgcttgagct cgagtacgag 1740
383 ggcttctaca aacgcggctt cttcgtcacg aagaagaagt atgcggtgat agacgaggaa 1800
385 ggcaagataa caacgcgcgg acttgagatt gtgaggcgtg actggagcga gatagcga 1860
387 gagacgcagg cgagggttct tgaagctttg ctaaaggacg gtgacgtcga gaaggccgtg 1920
389 aggatagtc aagaagttac cgaaaagctg agcaagtacg aggttccgic ggagaagctg 1980
391 gtgatccacg agcagataac gagggattta aaggactaca aggcaaccgg tccccacgtt 2040
393 gccgttgcca agaggttggc cgcgagagga gtcaaaatac gccctggaac ggtgataagc 2100
395 tacatcgtgc tcaagggtc tgggaggata ggcgacaggg cgataccgtt cgacgagttc 2160
397 gaccgcacga agcacaagta cgacgccgag tactacattg agaaccagggt tctcccagcc 2220

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RAW SEQUENCE LISTING ERROR SUMMARY
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Please Note:

Presence of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> <223> fields of each sequence which presents at least one n or Xaa.

q#:3; N Pos. 23
q#:14; N Pos. 16,17
q#:23; N Pos. 1161
q#:24; N Pos. 423,429
q#:37; N Pos. 277,278,279
q#:37; Xaa Pos. 93
q#:38; Xaa Pos. 93
q#:40; N Pos. 2788,2789,3287,3288,3289,3290,3291,3292,3473,3478
q#:75; N Pos. 5,10,11,13,20,21
q#:76; N Pos. 6,8,15
q#:84; Xaa Pos. 1118,1123

Invalid <213> Response:

Presence of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

q#:109,110

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L:64 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:207 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:794 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:1140
L:866 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:420
L:3170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:240
L:3171 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:288
L:3381 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:80
L:3884 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:2760
L:3900 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:3240
L:3906 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:3420
L:4420 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:0
L:4448 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:0
L:5024 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84 after pos.:1113